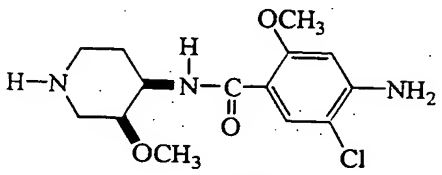
CLAIMS

1. A process for preparing (+)-norcisapride base of formula



(cis)

characterized by

a) separating the enantiomers of cis-ethyl 4-(4-amino-5-chloro-2-methoxy-benzoylamino)-3-methoxy-1-piperidine carboxylate by liquid chromatography over a chiral stationary phase, and

b) isolating the fraction having a specific rotation $[\alpha]_D^{20}$ in methanol that is dextrorotatory, and

c) solvolysing said fraction to (+)-norcisapride.

2. A process according to claim 1 wherein the chiral stationary phase is a cellulose or amylose polysaccharide.

3. A process according to claim 2 wherein the eluent is a mixture of hexane and an alcohol.

4. A process according to claim 1 wherein solvolysis comprises hydrolysis in a basic aqueous medium.

5. (+)-Norcisapride obtainable by a process of any of claims 1 to 4.

6. A compound according to claim 5 containing at least 90 % by weight of the (+)-stereoisomer and 10 % by weight or less of the (-)-stereoisomer.

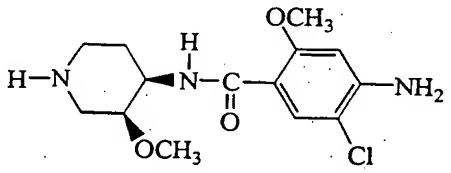
7. A compound according to claim 5 containing more than 99 % by weight of the (+)-stereoisomer.

8. (+)-Norcisapride according to claim 5 substantially free of its (-)-stereoisomer.

9. (+)-Norcisapride having a specific rotation $[\alpha]_D^{20}$ in methanol that is dextrorotatory

10. (+)-Norcisapride having a specific optical rotation $[\alpha]_D^{20}$ of about +5.60° (c = 1 % w/v in methanol).

11. (+)-Norcisapride having the absolute configuration of (3S,4R)



(3S,4R)-*cis*-4-amino-5-chloro-2-methoxy-*N*-(3-methoxy-4-piperidinyl)benzamide.

12. A pharmaceutically acceptable acid addition salt of a compound according to any of claims 5 to 11.

13. A pharmaceutical composition comprising a pharmaceutically acceptable carrier, and as active ingredient a therapeutically effective amount of a compound as described in any one of claims 5 to 12.

14. A process for preparing a pharmaceutical composition as claimed in claim 13 wherein a therapeutically effective amount of a compound as defined in any one of claims 5 to 12 is intimately mixed with a pharmaceutically acceptable carrier.

15. A method of treating gastro-intestinal disorders in a warm-blooded animal associated with an overstimulation of the 5-HT_3-receptor activity which comprises administering to said warm-blooded animal a therapeutically effective amount of a compound as defined in any of claims 5 to 12.

16. A method of treating gastro-intestinal disorders in a warm-blooded animal associated with an understimulation of the 5-HT_4-receptor activity which comprises administering to said warm-blooded animal a therapeutically effective amount of a compound as defined in any of claims 5 to 12.

17. A method of treating gastro-intestinal disorders in a warm-blooded animal which are simultaneously associated with an understimulation of the 5-HT_4-receptor activity and an overstimulation of the 5-HT_3-receptor activity which comprises administering to said warm-blooded animal a therapeutically effective amount of a compound as defined in any of claims 5 to 12.

18. A method according to any of claims 14 to 17 while avoiding central nervous system effects.

19. A method of treating 5-HT_3-mediated disorders while substantially avoiding central nervous system effects in a warm-blooded animal which comprises administering to said warm-blooded animal a therapeutically effective amount of a compound as defined in any of claims 5 to 12.

20. A method of claim 19 wherein the disorder is irritable bowel syndrome or diarrhea-predominant irritable bowel syndrome.

21. A method of claim 19 wherein the disorder is cytotoxic drug emesis or radiation induced emesis.

22. A method of treating eating disorders in a warm-blooded animal which comprises administering to said warm-blooded animal a therapeutically effective amount of a compound as defined in any of claims 5 to 12.

23. A method of claim 22 wherein the eating disorder is anorexia.

24. A method of accelerating intestinal cleansing in a warm-blooded animal which comprises administering to said warm-blooded animal a therapeutically effective amount of a compound as defined in any of claims 5 to 12 and a laxative.

25. A method of claim 24 wherein the laxative is an osmotic agent.

26. A method of claim 24 wherein the laxative is a polyethylene glycol (PEG)-electrolyte solution.

27. A method of treating 5-HT_4-mediated disorders while substantially avoiding central nervous system effects in a warm-blooded animal which comprises administering to said warm-blooded animal a therapeutically effective amount of a compound as defined in any of claims 5 to 12.

28. A method of claim 27 wherein the disorder is hampered or impaired gastrointestinal transit.

29. A method of claim 27 wherein the disorder is hampered or impaired gastric emptying.

30. A method of claim 27 wherein the disorder is gastro-oesophageal reflux.

31. A method of claim 27 wherein the disorder is dyspepsia or gastroparesis.

32. Compounds of formula (V) wherein the piperidine ring has the absolute configuration (3S,4R) and PG is methyloxycarbonyl, ethyloxycarbonyl, *tert*-butyloxycarbonyl or phenylmethyl.